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EXAMINER

AVELLINO, JOSEPH E

ART UNIT PAPER NUMBER

2143

DATE MAILED: 10/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,810

Applicant(s)

JOHNSON ET AL.

Examiner

Joseph E. Avellino

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-164 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-164 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2002/02/27.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2143

DETAILED ACTION

1. Claims 1-164 are presented for examination; claims 1, 20, 39, 47, 55, 67, 80, 92, 124, and 150 independent.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-164 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-148 of copending Application No. 09/879811. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

Art Unit: 2143

Both applications are claiming systems and methods for providing differentiated services comprising a plurality of processing engines being capable of providing session-aware differentiated service.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-38, 43-46, 51-54, 59-62, 65-66, 71, 72, 74, 75, 78, 79, 83, 85-123, 139, 142-145, and 157-160 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. The above-mentioned claims recite the limitation "or a combination thereof". This limitation does not distinctly define the invention since it can be any combination of the limitations previously stated. For examination purposes it will be understood that this limitation does not exist. Correction is required.

7. Claim 38 is further rejected as being a duplicate of claim 37. Correction is required.

Art Unit: 2143

8. Claim 88 is further rejected as being a duplicate of claim 87. Correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-13, 15-32, 34-47, 49-111, 116-130, 135-137, 140-141, 146-164 are rejected under 35 U.S.C. 102(e) as being anticipated by Anerousis et al. (USPN 6,760,775) (hereinafter Anerousis).

10. Referring to claim 1, Anerousis discloses a system capable of providing differentiated service in a network environment, comprising an information management system capable of providing session-aware differentiated service (e.g. abstract; Figure 8; col. 6, lines 43-53; col. 7, lines 44-50; col. 12, lines 40-46); a deterministic system architecture (the term “deterministic system architecture” can be broadly construed as “autonomously able to function without the necessity of human intervention”, such as seen in automatic packet classification) (col. 4, lines 6-15); or providing differentiated

Art Unit: 2143

service at a network endpoint of said network (the end user 340 is provided differentiated service based on the type of service the user requires) (Figure 3 and related portions of the disclosure).

11. Referring to claim 2, Anerousis discloses comprising an information management system coupled to said network at a point outside a core of said network (Figures 1-3; col. 6, lines 41-65).

12. Referring to claim 3, Anerousis discloses comprising a device that converges from an information source to said network (physical host site connected to a router which manages communication with the AS) (Figure 3).

13. Referring to claim 4, Anerousis discloses comprising a content delivery system (the bolded line, A3-E3, from client 340 to host server farm 330 and back shows the trip of requesting information and receiving the information) (Figure 3 and related portions of the disclosure).

14. Referring to claim 5, Anerousis discloses comprising an application serving node (Figures 2-4; col. 11, line 66 to col. 12, line 29).

15. Referring to claim 6, Anerousis discloses comprising a router (Figure 3).

Art Unit: 2143

16. Referring to claim 7, Anerousis discloses comprising a storage virtualization node (i.e. physical host site 330) that comprises a cluster of two or more content delivery systems 370 coupled together in a content delivery management system (Figure 3, 320, 330, 370).

17. Referring to claims 8 and 9, Anerousis discloses an intermediate traffic management node coupled between a content store and said network (SLR cluster 310 coupled between content source 370 and said network 350) (Figure 3).

18. Referring to claim 10, Anerousis discloses a network endpoint content delivery system (Figure 3, A3-E3).

19. Referring to claims 11, 18, and 19, Anerousis discloses comprising differentiated information service, and differentiated business service (the system can be used for business services (Figure 3, and related portions of the disclosure).

20. Referring to claim 12, Anerousis discloses providing one or more services to two or more different network entities that is differentiated between said two or more different network entities (col. 7, lines 7-21).

Art Unit: 2143

21. Referring to claim 13, Anerousis discloses providing one or more services to two or more different network entities that vertically differentiates (i.e. prioritizes) said services between said two or more different network entities (col. 7, lines 7-21).

22. Referring to claim 15, Anerousis discloses comprising a plurality of distributively interconnected processing engines (310, 320, 325) and assigning one or more tasks to one or more of said processing engines to cause said differentiated manipulation of information (col. 12, line 40 to col. 13, line 21).

23. Referring to claim 16, Anerousis discloses an information management system capable of dynamic resource allocation or re-allocation (col. 7, lines 1-21; col. 12, lines 55-67).

24. Referring to claim 17, Anerousis discloses comprising: a deterministic system architecture (see previous rejections above); an operating system in communication with said architecture (it is inherent that in any computing device there must be a system which manages computer functions); at least one application in communication with the operating system (i.e. load balancer, col. 13, lines 1-21); a differentiated service infrastructure (i.e. hardware) in communication with said operating system (Figure 3).

25. Claims 20-32, and 34-42, are rejected for similar reasons as stated above.

Art Unit: 2143

26. Referring to claim 43, Anerousis discloses said network endpoint information management system comprises a content source 370, and wherein said providing differentiated service comprises handling at least one of incoming or outgoing information traffic in a differentiated manner based on one or more parameters associated with said traffic (col. 4, lines 40-45; col. 12, lines 40-46).

27. Referring to claim 44, Anerousis discloses reading incoming classification information associated with incoming data packets and handling said incoming data packets in a differentiated manner based on said incoming classification information associated with said data packets (col. 7, lines 1-21; col. 12, line 40 to col. 13, line 22).

28. Claims 45-47, and 49-80 are rejected for similar reasons as stated above.

29. Referring to claim 81, Anerousis discloses providing said differentiated service in a manner that is network transport independent (col. 7, lines 22-48).

30. Claims 82-83 are rejected for similar reasons as stated above.

31. Referring to claim 84, Anerousis discloses said packet classification is based on a packet classification technology that is at least one of a layer two through layer seven packet classification technology (the system uses the application-level headers, which is well known to be layer 7) (col. 2, lines 40-46).

Art Unit: 2143

32. Claims 85-111 are rejected for similar reasons as stated above.

33. Referring to claim 116, Anerousis discloses said method comprising manipulating information in a differentiated manner by distinguishing and identifying between two or more different service class parameters associated with two or more respective information manipulation tasks (col. 12, lines 40-50).

34. Claim 117 is rejected for similar reasons as stated above.

35. Referring to claim 118, Anerousis discloses manipulating information in a differentiated manner based on one or more processing decisions regarding the performance of two or more respective information manipulation tasks relative to each other (col. 12, lines 30-55).

36. Referring to claim 119, Anerousis discloses one or more processing decisions comprises a decision related to queue prioritization (col. 12, line 55 to col. 13, line 45).

37. Claims 120-121 are rejected for similar reasons as stated above.

38. Referring to claim 122, Anerousis discloses distinguishing between two or more different service class parameters comprises using one or more policies to direct the

Art Unit: 2143

operational behavior of the network endpoint system (i.e. logic for a filter) (col. 12; col. 17, lines 1-25).

39. Referring to claim 123, Anerousis discloses using one or more policies to associated each of said two or more class parameters with a particular network class of service mechanism (i.e. tunnel) (Figure 8).

40. Referring to claims 124-130, 135-141 are rejected for similar reasons as stated above.

41. Referring to claim 142, Anerousis discloses said differentiated service tasks comprise monitoring one or more system performance parameters related to information management in real time or on a historical basis (i.e. load balancing of the servers) (col. 7, lines 43-49; col. 11, line 66 to col. 12, line 17).

42. Claims 146-151 are rejected for similar reasons as stated above.

43. Referring to claim 152, Anerousis discloses said system comprises a plurality of processing engines that are distributively interconnected and that are assigned separate information manipulation tasks in an asymmetrical multi-processor configuration; wherein said system comprises software in communication with operating system and having state knowledge of resource utilization within said architecture; and wherein said

Art Unit: 2143

method further comprises using said system software to control interaction between said processing engines in response to communications received from said OS (it is inherent that there must be some load balancing algorithm controllable by the operating system in order to route the requests based on the load of the servers) (col. 6, line 65 to col. 7, line 48; col. 12, lines 1-30).

44. Referring to claim 153, Anerousis discloses having a monitoring agent (it must be inherent there must be an agent in order to determine the load of the server farm) which monitors resource characteristics of the processing engine with said system monitor and performing system management with said monitor (col. 12, lines 55-67).

45. Claims 154-164 are rejected for similar reasons as stated above.

Claim Rejections - 35 USC § 103

46. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

47. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 2143

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 14, 33, 48, 112-115, 131-134, and 154-156 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anerousis.

48. Referring to claim 14, Anerousis discloses the invention substantively as described in claim 2. Anerousis does not specifically disclose providing services in a manner that horizontally differentiates each of said services based on the ISP associated with said service. However, one of ordinary skill in the art would know that it is well known that there are systems which will tailor web pages based on the type of internet connection of the user (i.e. using low resolution graphics for low bandwidth connections, using small versions of web pages for WAP browsers, etc.). By this rationale it would have been obvious to one of ordinary skill in the art to provide differentiated services based on the service provider in order to tailor a static service for a dynamically changing service provider, thereby increasing the useability of the content and reaching a greater share of the public.

49. Claims 33 and 48 are rejected for similar reasons as stated above.

Art Unit: 2143

50. Referring to claim 154, Anerousis discloses the invention substantively as described in claim 153. Anerousis does not specifically state that resource utilization parameters are determined by making system calls to the operating system, however it is well known that network monitoring nodes may query the OS based on API routines enabled for network access (i.e. remote accessing, management alert packets, etc.) in order to determine the performance of resources on a computer. This would lead one of ordinary skill in the art that it would have been obvious to modify the system described in Anerousis in order to facilitate retrieving information pertaining to the resource utilization parameters to facilitate computer network programming as well as for network administration scalability.

51. Referring to claim 155, Anerousis discloses intelligently handling system congestion using code included in at least one application by using calls into said OS (col. 13, lines 10-20).

52. Claims 112-115, 131-134, and 156, are rejected for similar reasons as stated above.

53. Claims 143-145 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anerousis in view of Jorgensen et al. (USPN 6,640,248) (hereinafter Jorgensen).

Art Unit: 2143

54. Referring to claim 143, Anerousis discloses the invention substantively as described in claim 142. Anerousis does not disclose reporting information related to a monitored system performance to a physically remote located system for generating of billing data. In analogous art, Jorgensen discloses another differentiated service which reports information related to a monitored system performance to a physically remote located system for generating of billing data (col. 80, lines 15-40). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Jorgensen with Anerousis in order to appropriately allow the system to charge a fee in order for preferred services, such as higher priority service or bandwidth as well as allowing the usage of the system based on QoS service statistics of the user.

55. Claims 144 and 145 are rejected for similar reasons as stated above.

Conclusion

56. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

57. Ronneke (USPN 6,515,989) discloses collecting per-packet billing data in a packet data service.

58. Short et al. (USPN 6,789,110) discloses information and control console for use with a network gateway interface.

59. Mangipudi et al. (USPN 6,728,748) discloses policy based class of service and adaptive service level management within the context of an internet and intranet.

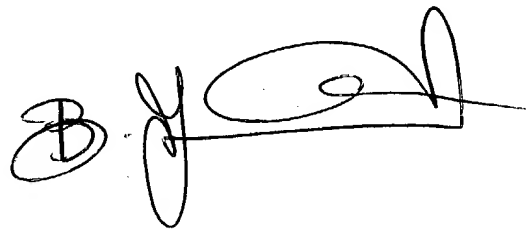
Art Unit: 2143

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (703) 305-7855. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (703) 308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JEA
October 12, 2004

A handwritten signature in black ink, appearing to read 'Bunjob Jaroenchonwanti', with a stylized, cursive script.

**BUNJOB JAROENCHONWANT
PRIMARY EXAMINER**